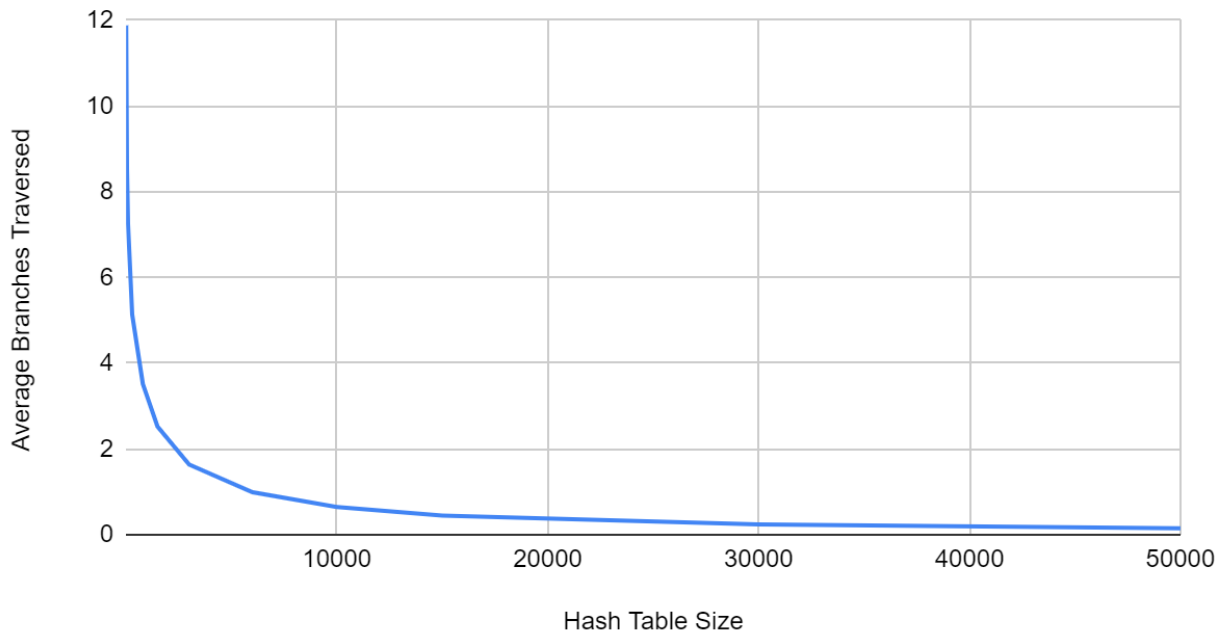


Writeup

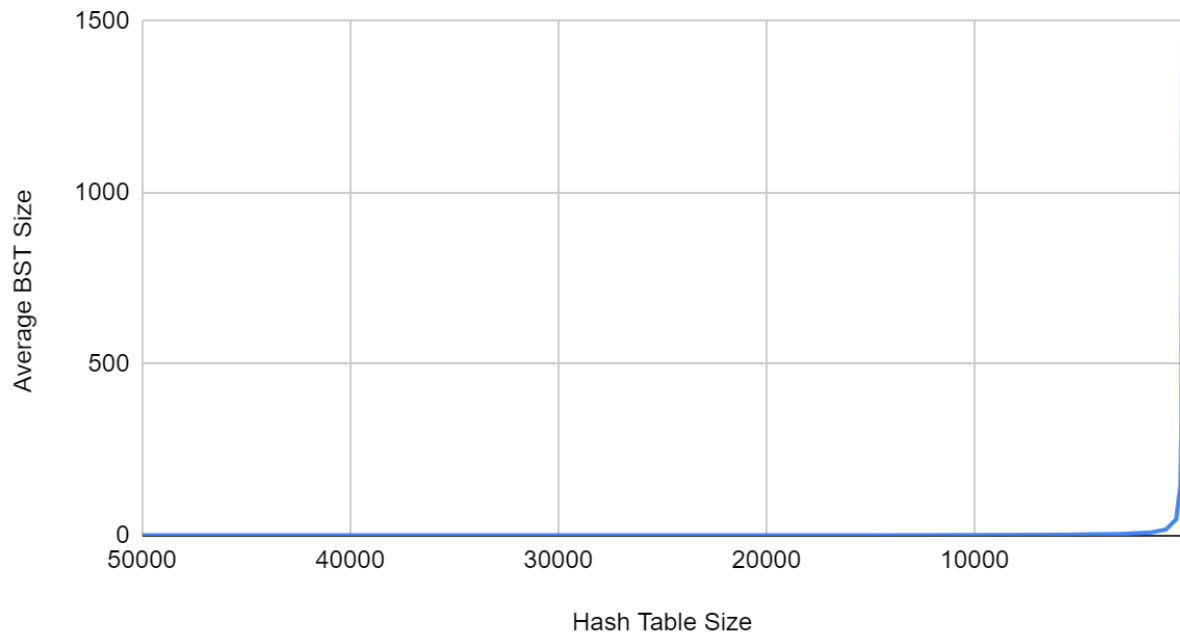
Varying Hash Table Size

When the hash table size changes average branches traversed, average BST size, average BST height, and hash table load, and bloom filter load all decrease. The smaller the hash table size is, the near the hash table load and bloom filter load are near to 100%. That makes sense to me because when there are fewer blocks for bloom filter and hash table to contain data, the more likely the data is going to use all spaces. As the size increase, average branches traversed, average BST size, and average BST height are getting near to 0 or 1. The decrease rate of those branches traversed, average BST size, and average BST height are also decreasing by the hash table size decrease.

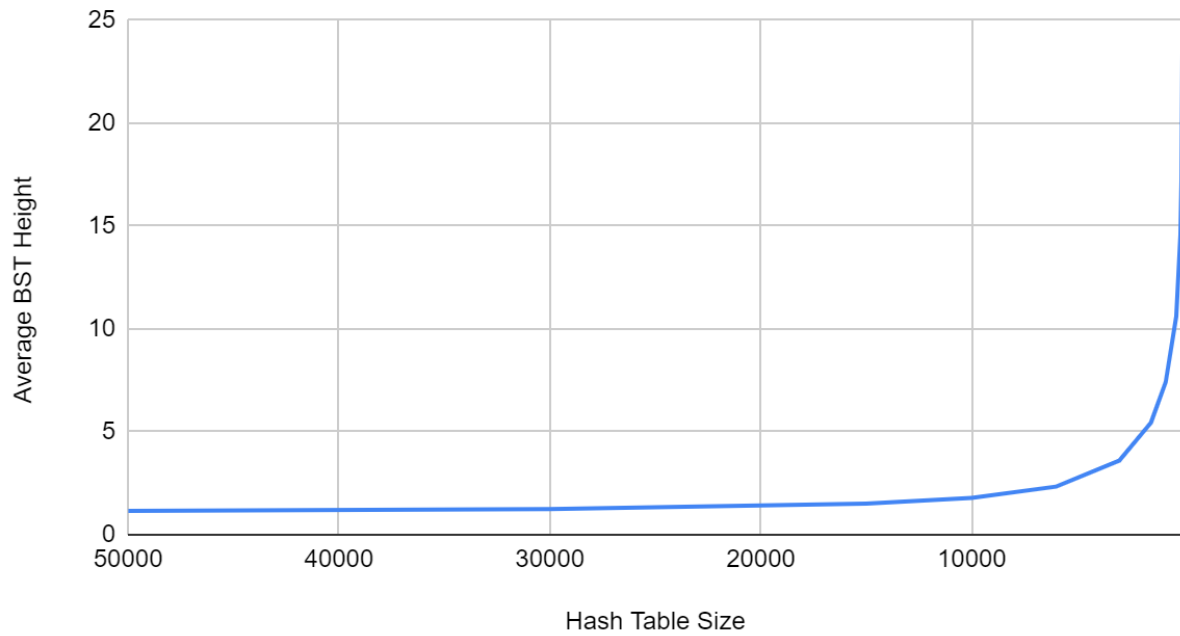
Average Branches Traversed and Hash Table Size



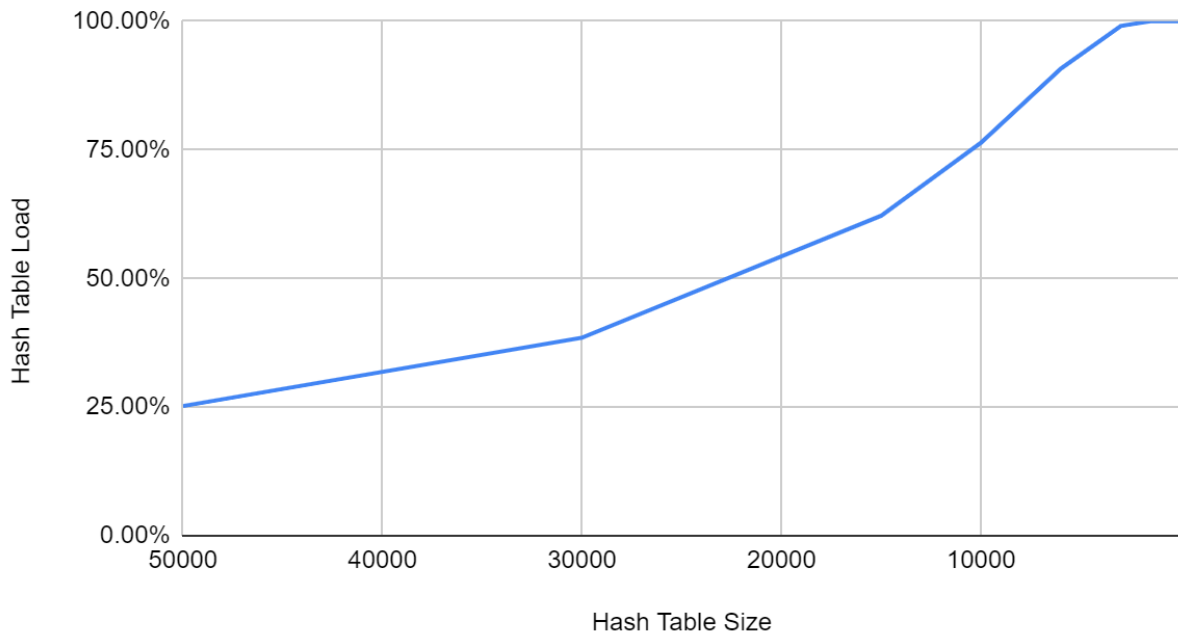
Average BST Size and Hash Table Size



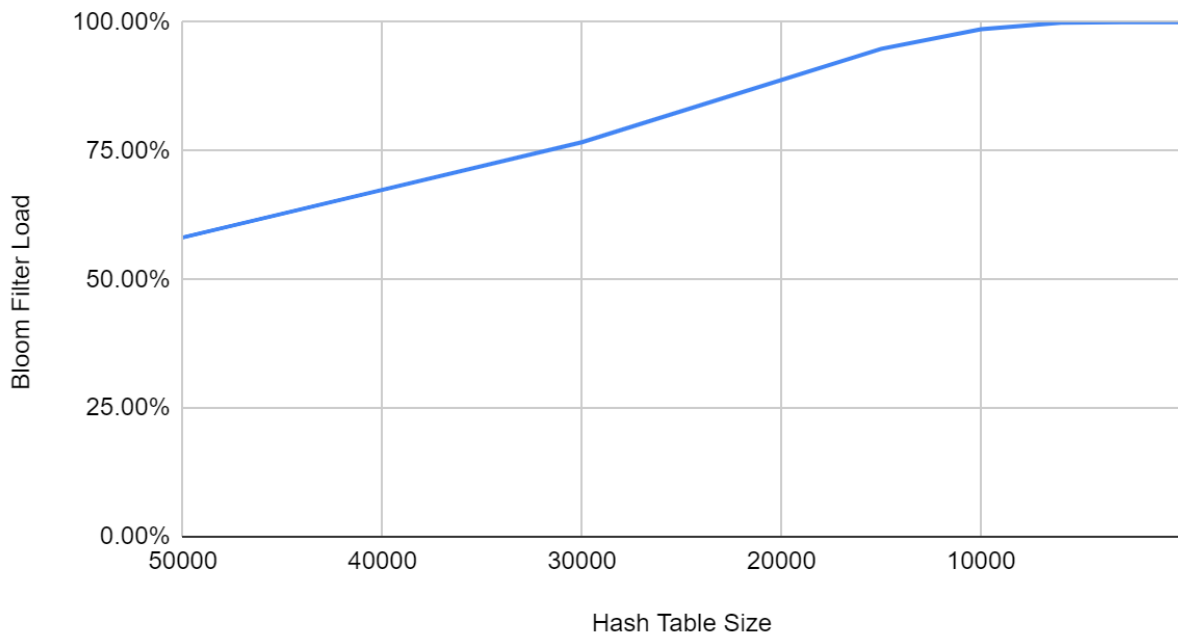
Average BST Height and Hash Table Size



Hash Table Load and Hash Table Size



Bloom Filter Load and Hash Table Size



Varying Bloom Filter Size

The data that I used for bloom filter size is the same as the hash table size. Thus it shows a similar result as the hash table size graphs. Average Branches Traversed also

decrease based on the bloom filter size increase. It also gets near to 0 when the bloom filter size goes up. The decrease rate of the average branches traversed also decreases.

Average Branches Traversed and Bloom Filter Size

